New Regs – Get Ready for Containment Testing

Federal Register

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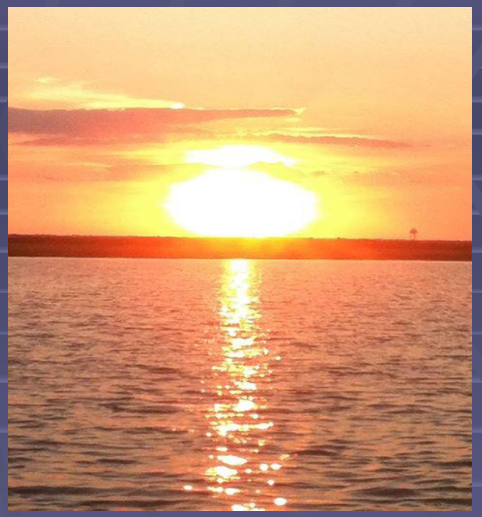

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

VAULT
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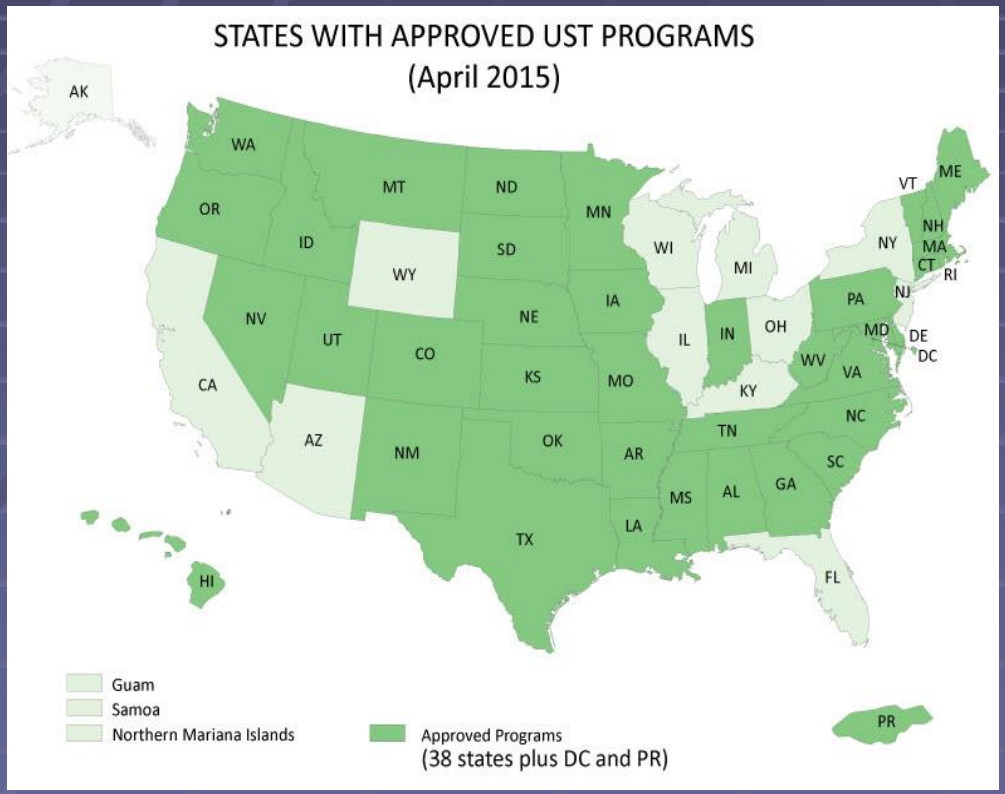
MO DNR Regulatory Meeting
07/21/2016

There Are Several Important Changes That Will Be Coming Thanks To The New Federal Rules But We're Going To Focus On Containment Testing (Buckets & Sumps)

MO is a State that has Approval from EPA to run their UST Program



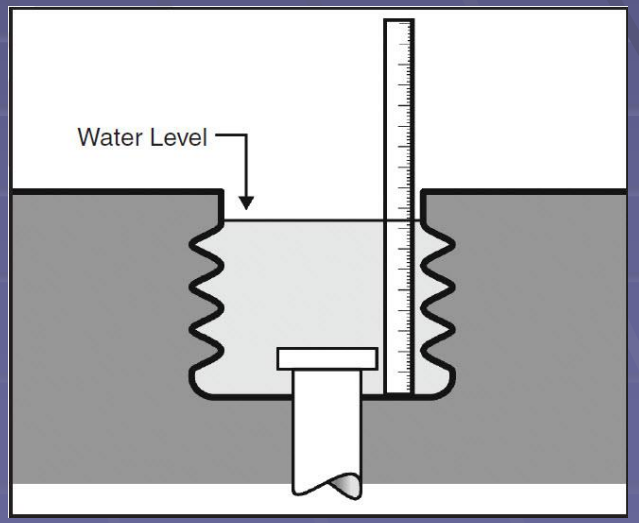
What does that mean?

- MO DNR's UST rules are still in effect, EPA's are not yet effective
- MO DNR needs to update their UST rules to meet US EPA's new regs (at minimum)
- MO's revised regs must be submitted to EPA for approval by October 2018 or risk losing approval and EPA would regulate

Spill Bucket Testing

- Testing spill buckets around your tank fills for tightness will be required to be performed every 3 years (follow manufacturer's guidelines, PEI RP 1200 or state standard); or
- Use a double wall spill bucket and monitor the interstitial space of the bucket monthly (including documenting the monthly inspection)
- **For UST Systems brought into use on or after 07/01/2017, this must be done at installation.
- For UST systems brought into use before 07/01/2017, your first spill bucket test must be done by 01/01/2020.
- Not applicable for stage I vapor buckets

Spill Container Test

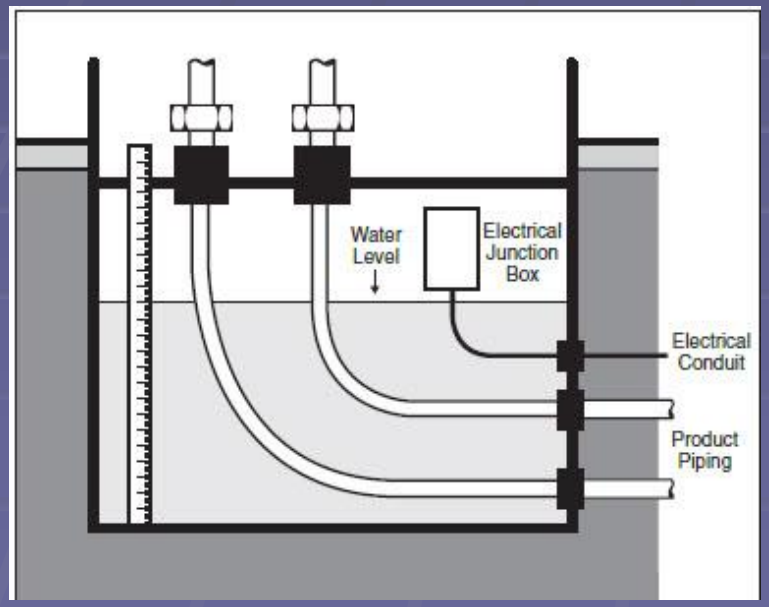


Containment Sump Testing

IF USING CONTAINMENT SUMPS (INCLUDING DISPENSER PANS) TO PERFORM INTERSTITIAL MONITORING FOR RELEASE DETECTION OF YOUR DOUBLE-WALL PIPING, YOU MUST:

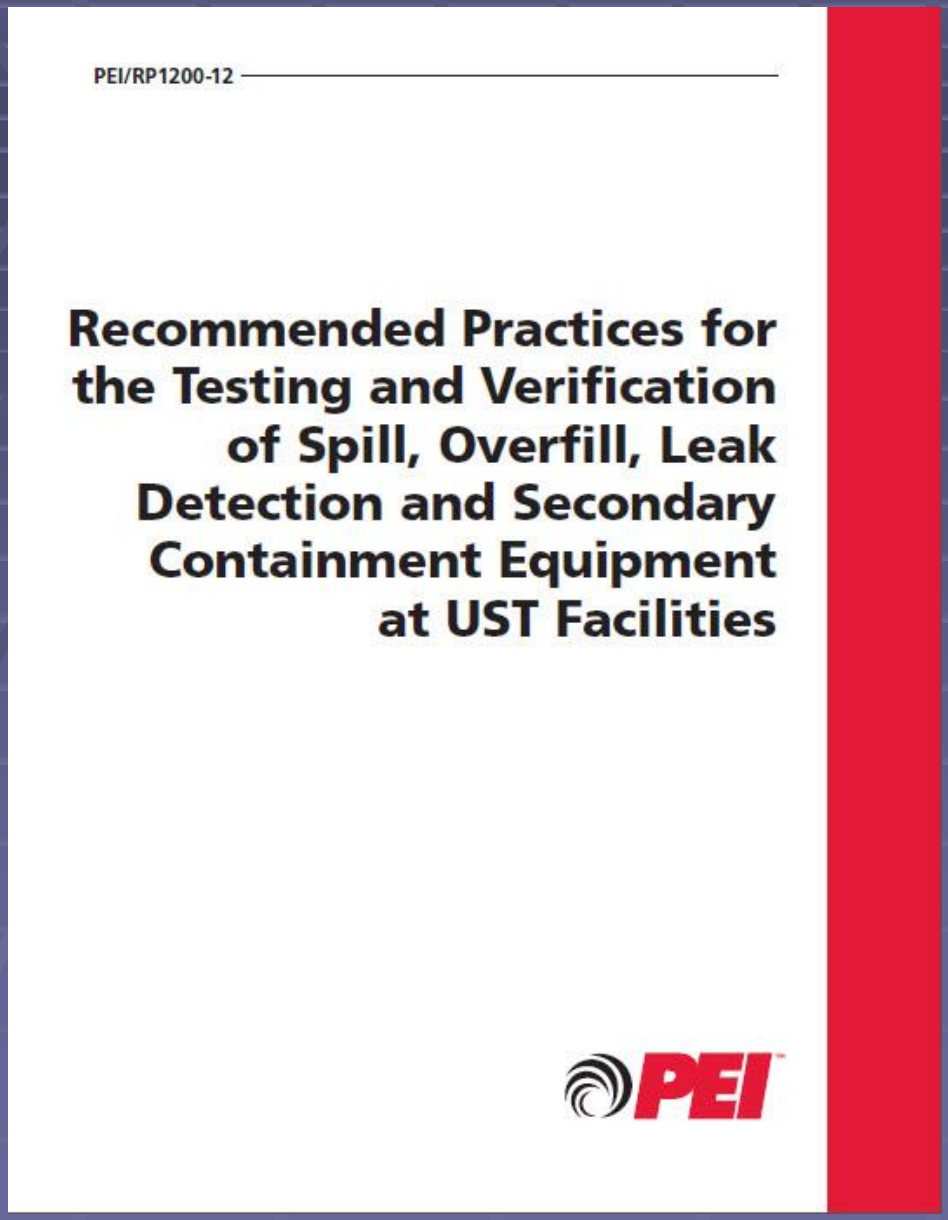
- Test SUMPS & UDC'S for tightness every 3 years (follow manufacturer's guidelines, PEI RP 1200 or state standard); or
- Use a double wall sump/UDC and monitor the interstitial space of the sump/UDC monthly (and document)
- Any tanks or piping installed after 07/01/2017 MUST USE INTERSTITIAL MONITORING FOR RELEASE DETECTION, therefore, those sumps and UDC's would be required to be tested every 3 years.
- **For UST Systems brought into use on or after 07/01/2017, this must be done at installation.
- For UST systems brought into use before 07/01/2017, this must be done by 01/01/2020.

Something to consider: If possible, change piping release detection method to annual line tightness testing. Then containment sump testing would not be required (except for systems installed on or after 07/01/2017).



GET FAMILIAR WITH THE NEW STANDARD!!!!!

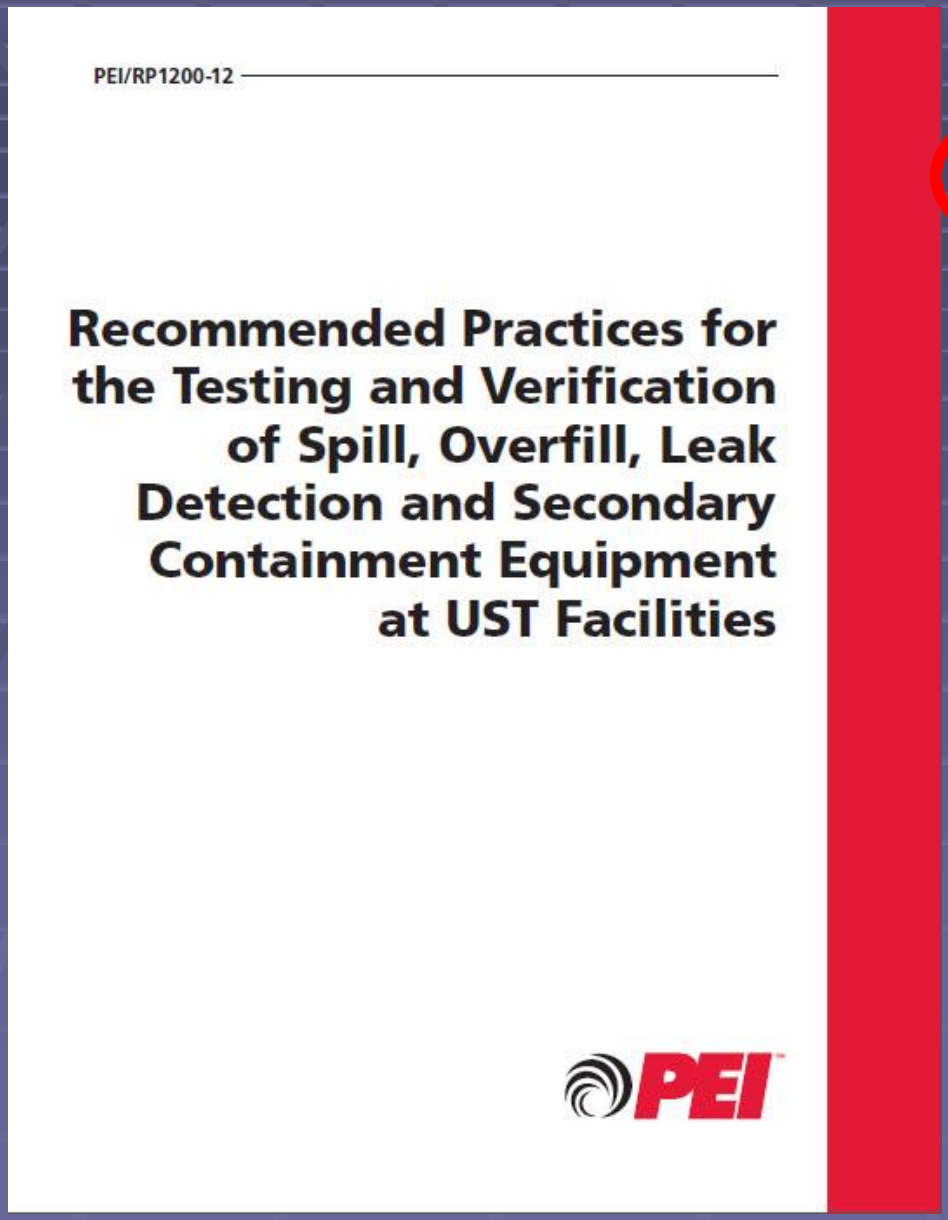
PEI RP1200



PURPOSE – Provide general procedures and guidelines for conducting equipment testing and inspections to meet the new EPA regulations and covers:

- **Overfill Prevention Equipment**
- **Leak Detection Sensors**
- **ATGs**
- **Line Leak Detectors**
- **Spill buckets**
- **Containment Sumps**
- **Tank & Piping Interstitial Spaces**
- **Shear Valves**
- **E-Stops**

PEI RP1200



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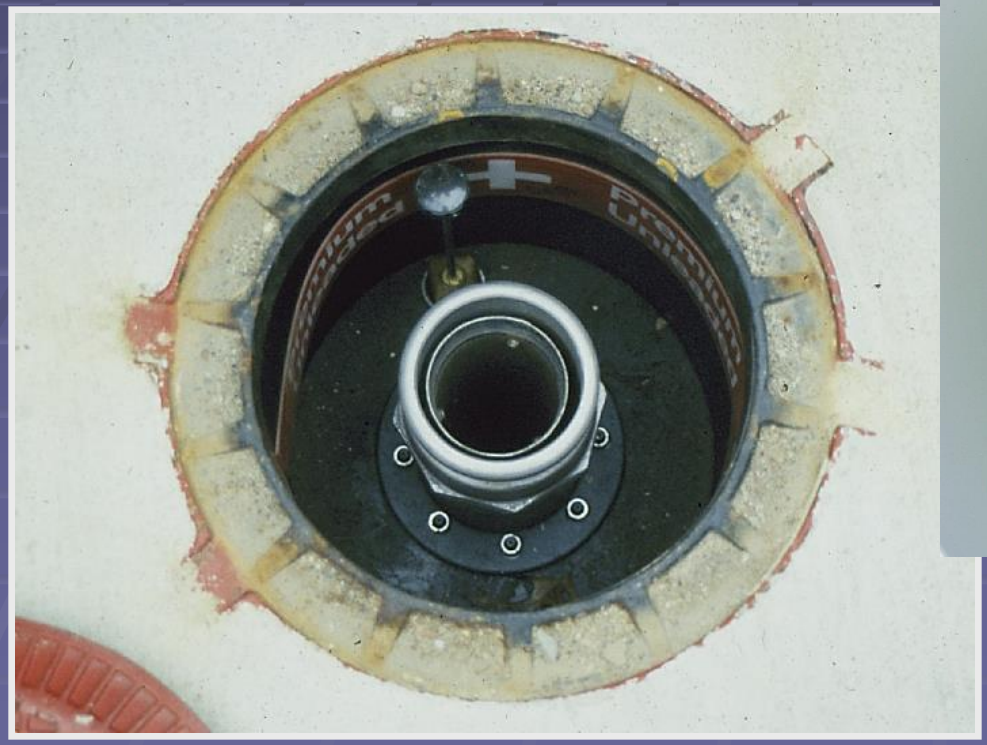
Chapter 6: Spill Bucket and Containment Sump Testing



Spill Bucket: Hydrostatic Test

Spill Bucket Testing (Hydrostatic)

- **RP 1200: (hydrostatic)**
- Clean, inspect and repair defects
- Fill cap and adapter seal tightly (or use plumber's plug)
- Drain valve leak tight (or permanently removed)
- Fill with water to within 1.5 inches of top
- Measure water depth to within 1/16 inch
- Wait one hour
- Water level must drop less than 1/8 inch

Spill Bucket Testing: Vacuum Test

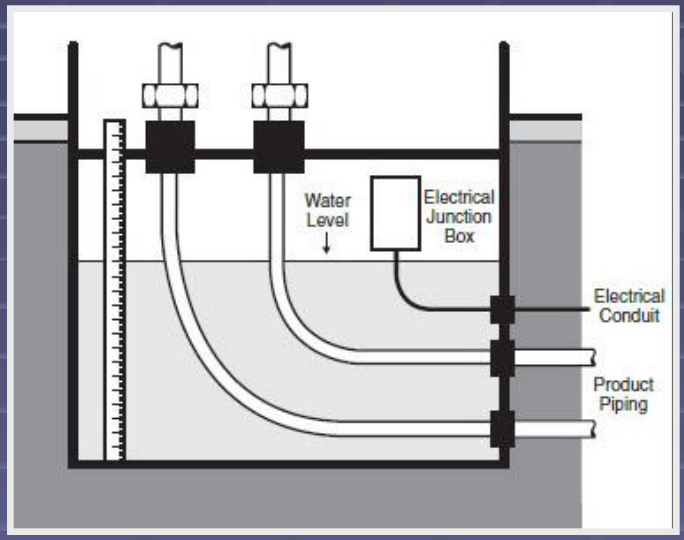
Spill Bucket Vacuum (Primary)

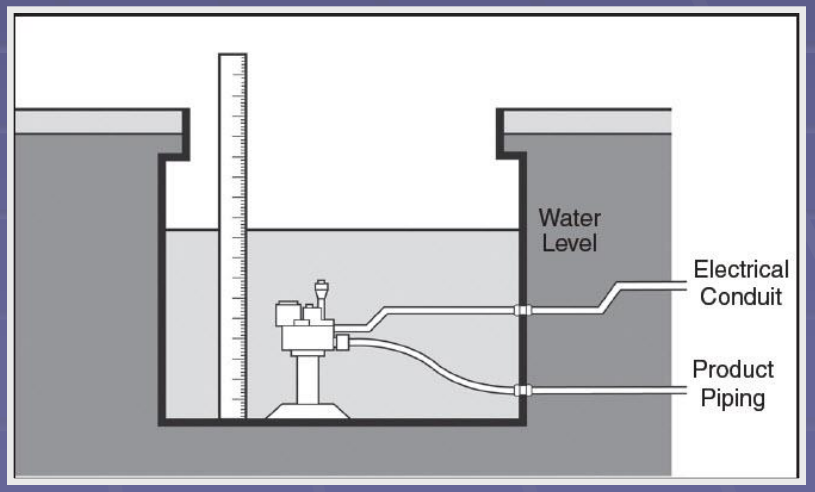
- **RP 1200: (vacuum)**
- Clean, inspect and repair defects
- Fill cap and adapter seal tightly (or use plumber's plug)
- Drain valve leak tight (or permanently removed)
- Seal test cover to top of spill bucket
- Apply vacuum of 30 inches water column
- Hold for one minute
- If ending vacuum is 26 inches or greater, test passes

Spill Bucket Vacuum (Outer Wall if DW)

- **RP 1200: (vacuum)**
- Clean, inspect and repair defects
- Attach to secondary access point
- Apply vacuum of 15 inches water column
- Hold for one minute
- If ending vacuum is 12 inches or greater, test passes

Piping Containment Sump Testing (Tank & UDC)





Containment Sump Testing

- **RP 1200: (hydrostatic)**
- Clean, inspect and repair defects
- Fill with water to 4” above highest penetration or sidewall seam
- Measure water depth to within 1/16 inch
- Wait one hour
- Water level must drop less than 1/8 inch

What have we learned from experience in another state when containment testing was first mandated?

MD Wrote a Protocol on 4/26/05 Which is Very Similar to PEI RP 1200

http://www.mde.state.md.us/programs/Land/OilControl/FactSheetsPublications/Documents/www.mde.state.md.us/assets/document/OilControl/MD_Contain_System_Training_Protocol.pdf

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101 http://www.mde.state.md.us

Maryland Containment System Testing Protocol

Introduction:

Recent (January 26, 2005) changes to Code of Maryland Regulations (COMAR) 26.10, *Oil Pollution and Tank Management*, establish requirements for the testing of underground storage tank (UST) system spill catchment basins and release containment sumps to ensure this equipment is not leaking. Specifically, these optional testing protocols were developed by the Maryland Department of the Environment (MDE) for spill catch basins (a.k.a. spill buckets) and containment sumps. The Department recognizes that this protocol is not necessarily the only method that can be used to determine the tightness of this equipment. There are electronic and vacuum methods available that may be more accurate than the process outlined in this protocol. However, before an alternative method can be used, the proposed testing method must be provided in detail to the Department for our review and approval. The Department further recommends that basin and sump testing be performed in conjunction with other UST compliance testing activities. After the initial test, the spill catchment basins are required to be tested yearly and containment sumps every five years.

Who can perform the test:

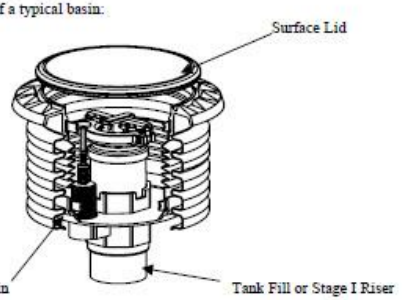
The individual performing the inspection and testing as outlined in this protocol must be either:

1. A certified UST technician in compliance with COMAR 26.10.06;
2. A Maryland certified UST inspector in compliance with COMAR 26.10.06; or
3. Employed by an UST testing company recognized by MDE as indicated on the list of approved UST tests methods authored and updated by MDE.

Spill Catchment Basins:

Containing the inevitable small spills that occur in the transfer of fuel from the tanker truck to the UST was the driving force behind the requirement for spill catchment basins (a.k.a. spill buckets). This requirement is stated in COMAR 26.10.03.03. Under COMAR 26.10.03, Maryland requires spill catchment basins (basins) on every tank installed on or after December 22, 1988. For tanks installed prior to that date, owner/operators had until December 1998 to have them in place. Thus, in Maryland it is possible that some basins have been in the ground for seventeen or more years. On July 1, 1998 Maryland further amended COMAR and required the installation of basins on the Stage I vapor recovery connections of gasoline storage tanks and the fill pipes for used oil storage tanks (COMAR 26.10.03.03.C and D).

The following is a schematic of a typical basin:



(Diagram taken from the EPA-OUST document "MUSTs for USTs")

The MDE testing procedure describes the protocol in detail. Important facts to consider with this test are:

1) The basins are hydrostatically tested;
2) Care must be taken to isolate loss through the drain;
3) The standard for declaring a failure is 1/8 inch or greater loss of water within one hour (which is equal to a leak rate of 0.05 gallons per hour in a typical 12-inch diameter basin).

It is important to understand that basins were neither intended nor designed for the *storage* of petroleum product, but rather to *contain* a small spill. The clear intent is that any spilled product would be immediately removed and either returned to the tank or properly disposed. Although it is a violation of COMAR 26.10.04.01B, it is very common to find petroleum product in the basin.

SPILL CATCHMENT BASINS HYDROSTATIC TEST

I. This test cannot be performed in the rain or in freezing weather conditions.

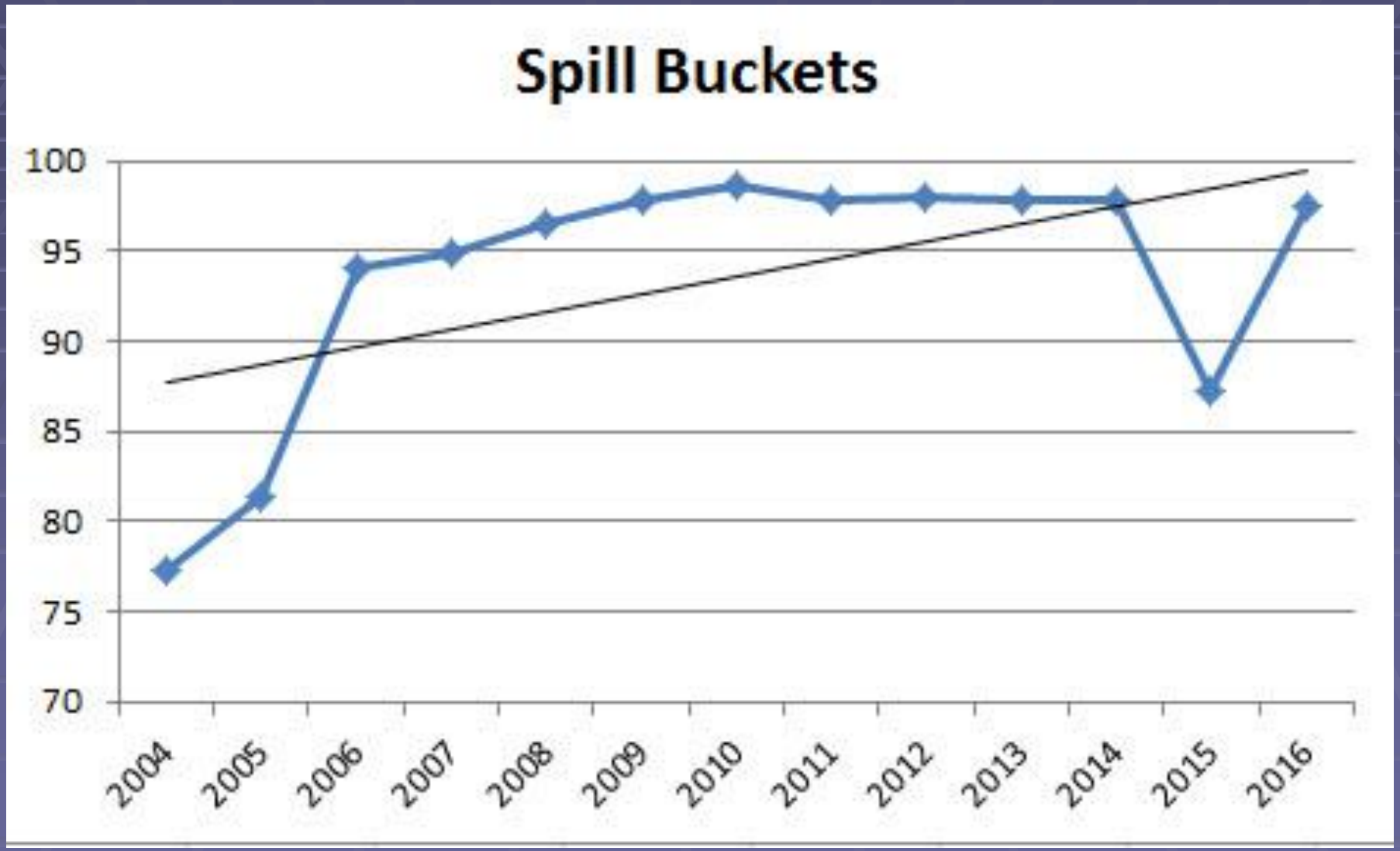
II. Basins must be inspected for debris and liquid content. If liquid content is found to include significant petroleum product, the product must be removed. Any accumulation of debris (leaves, trash and sediment) encountered in the basins must be removed for proper disposal.

III. Examine all fill and vapor recovery caps and adapter fittings for loose or damaged parts and make necessary replacements.

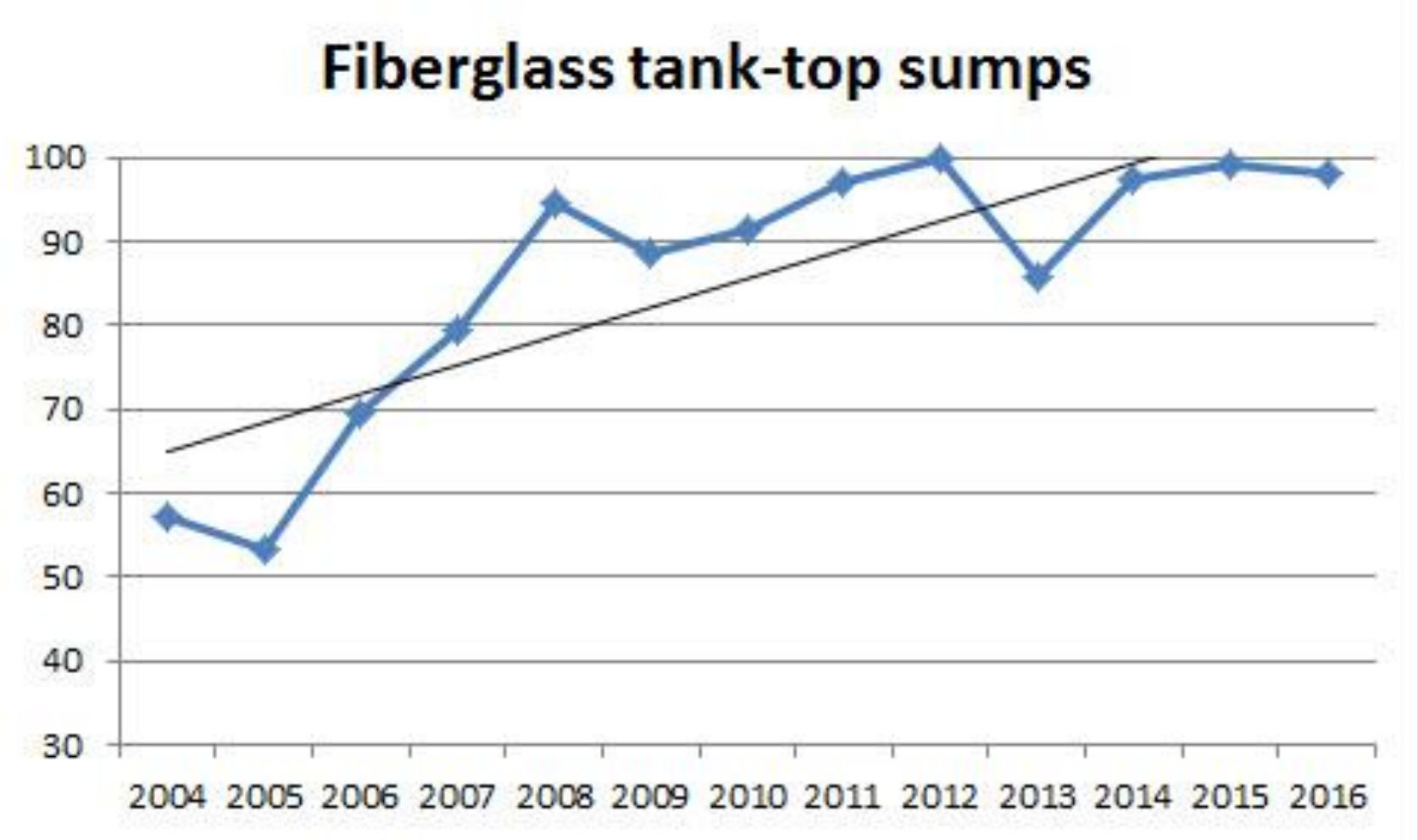
IV. Examine the basins for damage. A damaged basin should not be tested but recorded as a failure and arrangements made for repair or replacement.

V. The basin drain must be secured against possible leaks. This involves one of the following procedures:

MD Spill Bucket Testing Data

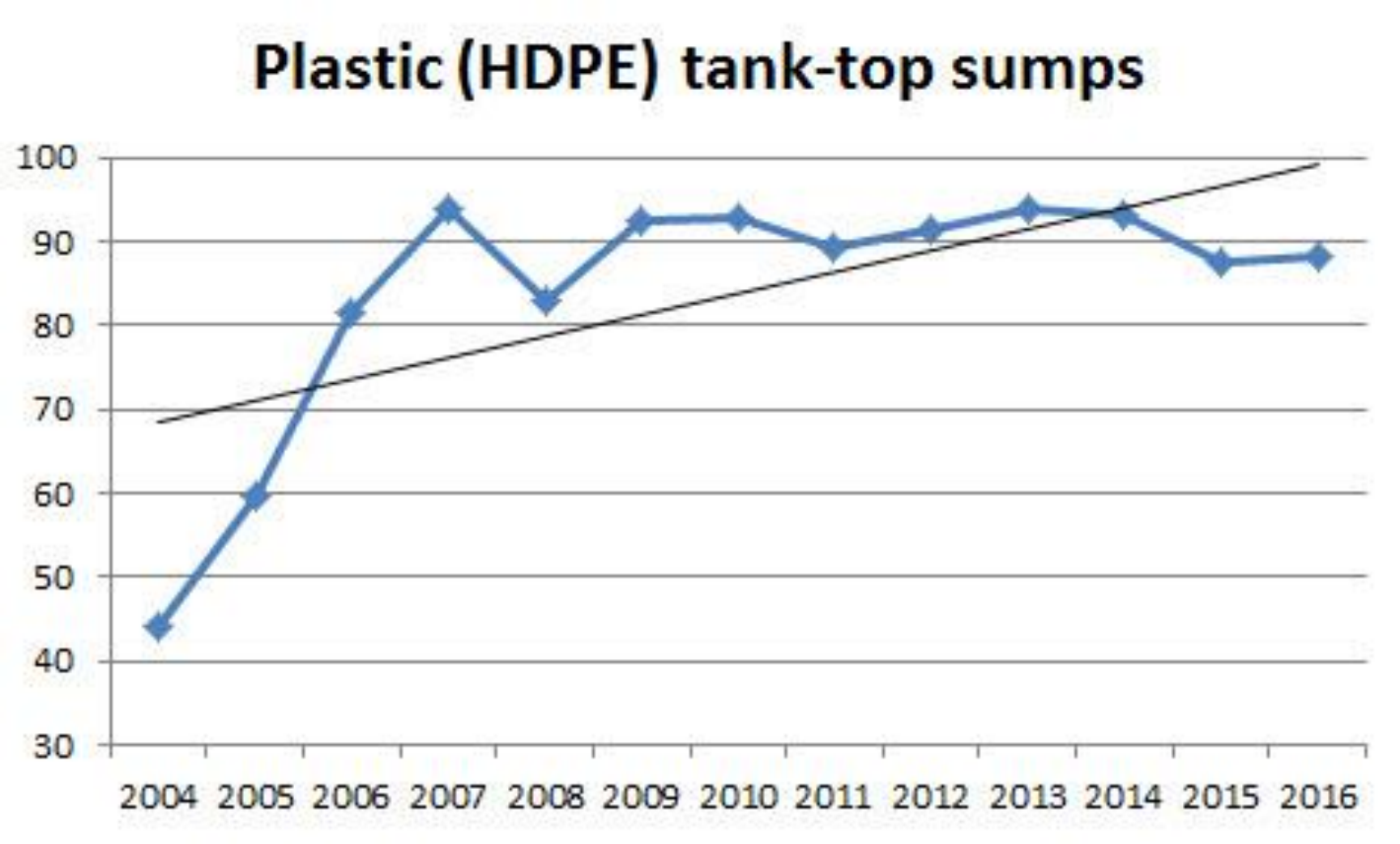


Containment Sump Testing Will Be Painful in the Beginning



Here's what MD test data looked like when they first started testing containment sumps back in 2005/2006 with their new rules.

Containment Sump Testing Will Be Painful in the Beginning



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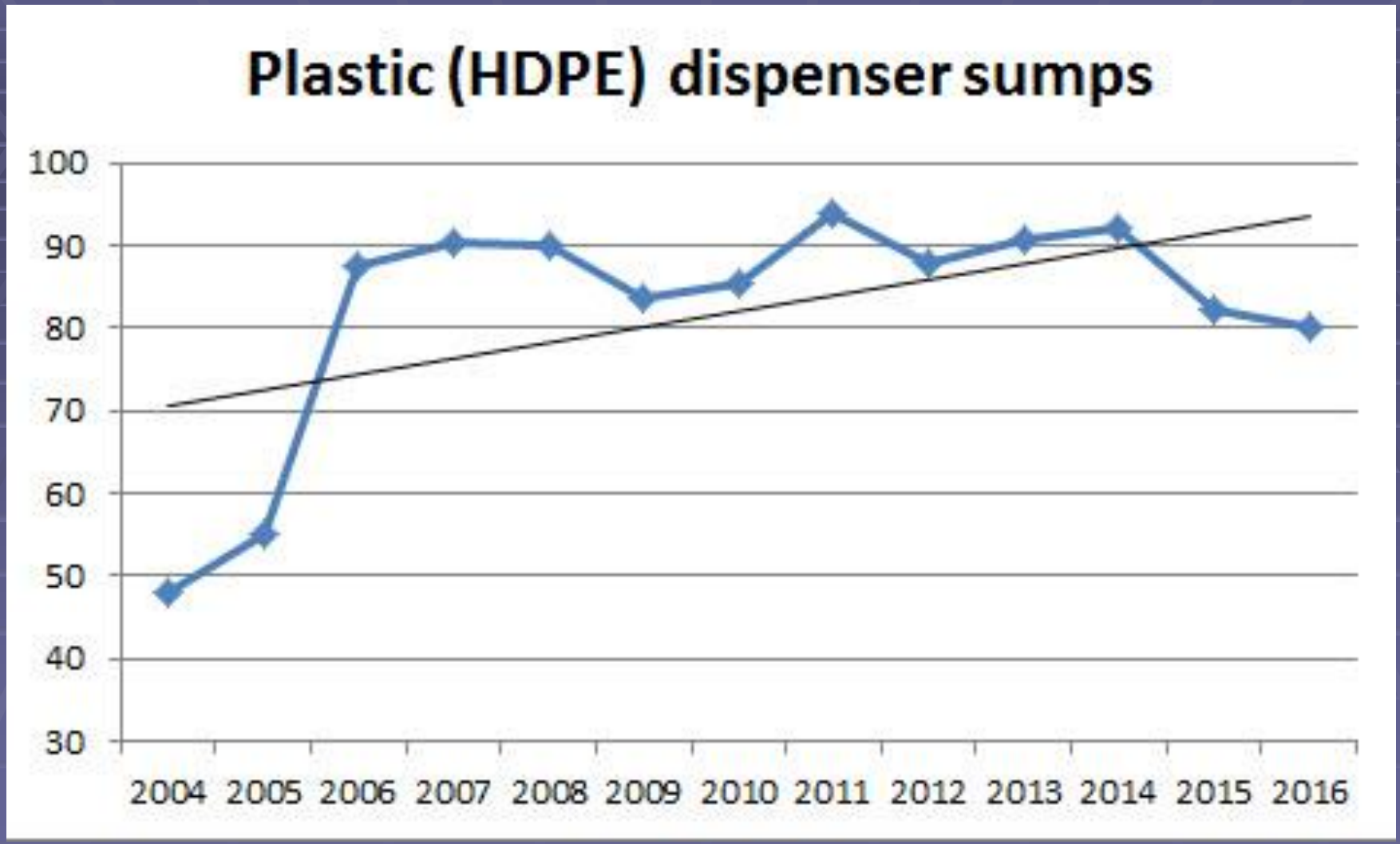

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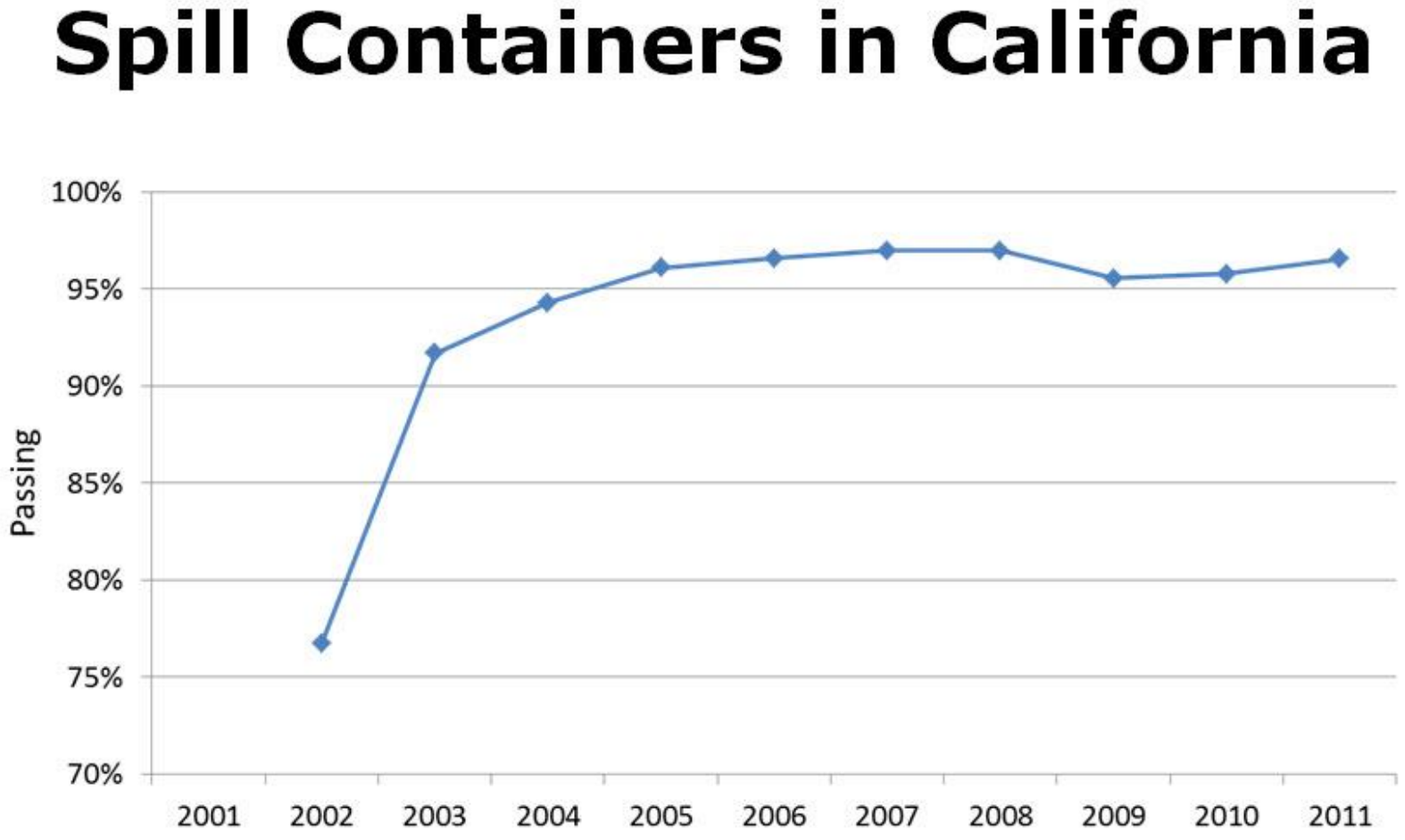
Tanknology Data (Bill Logue @ NECSEMA 3/16/16)



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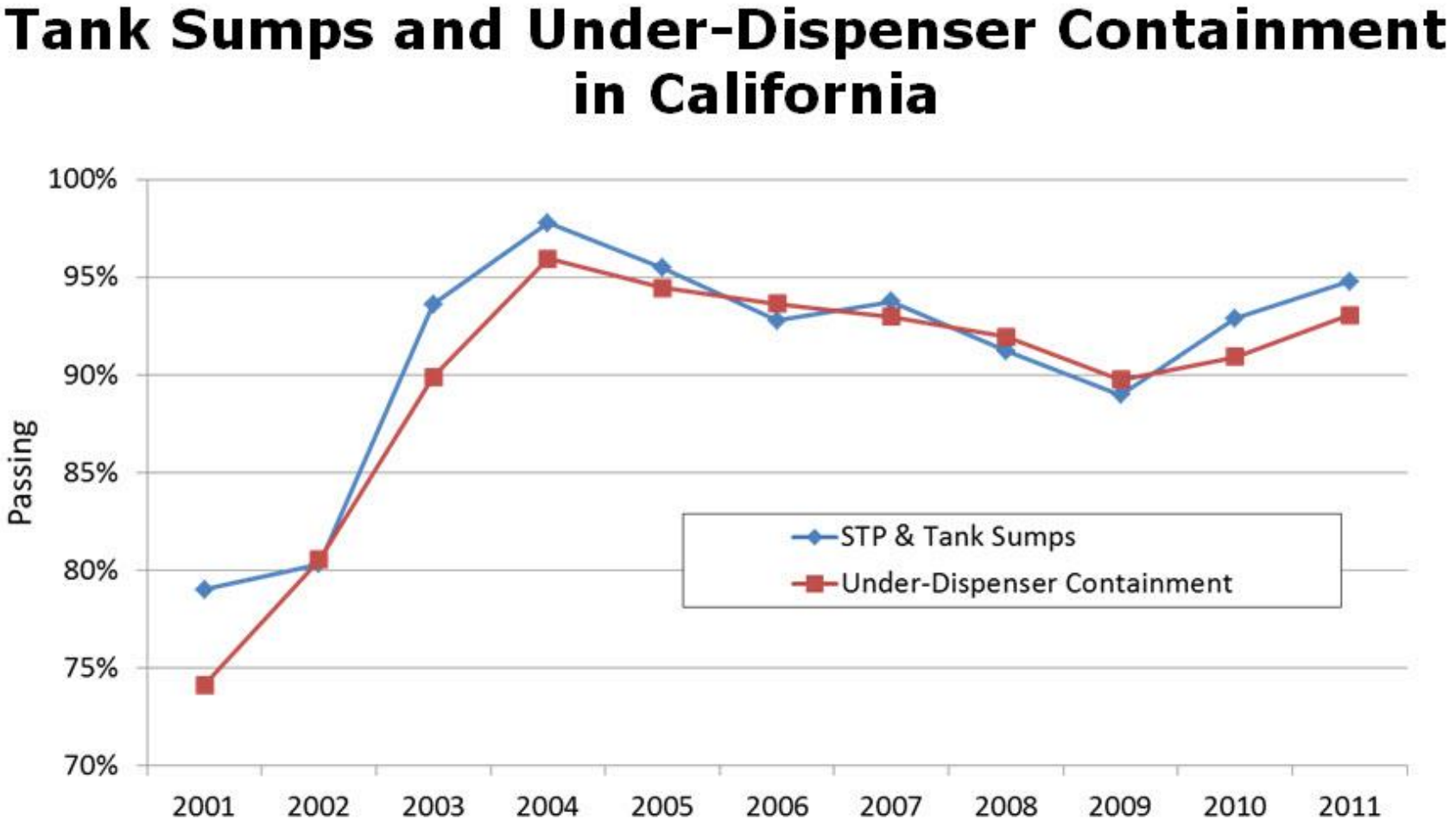
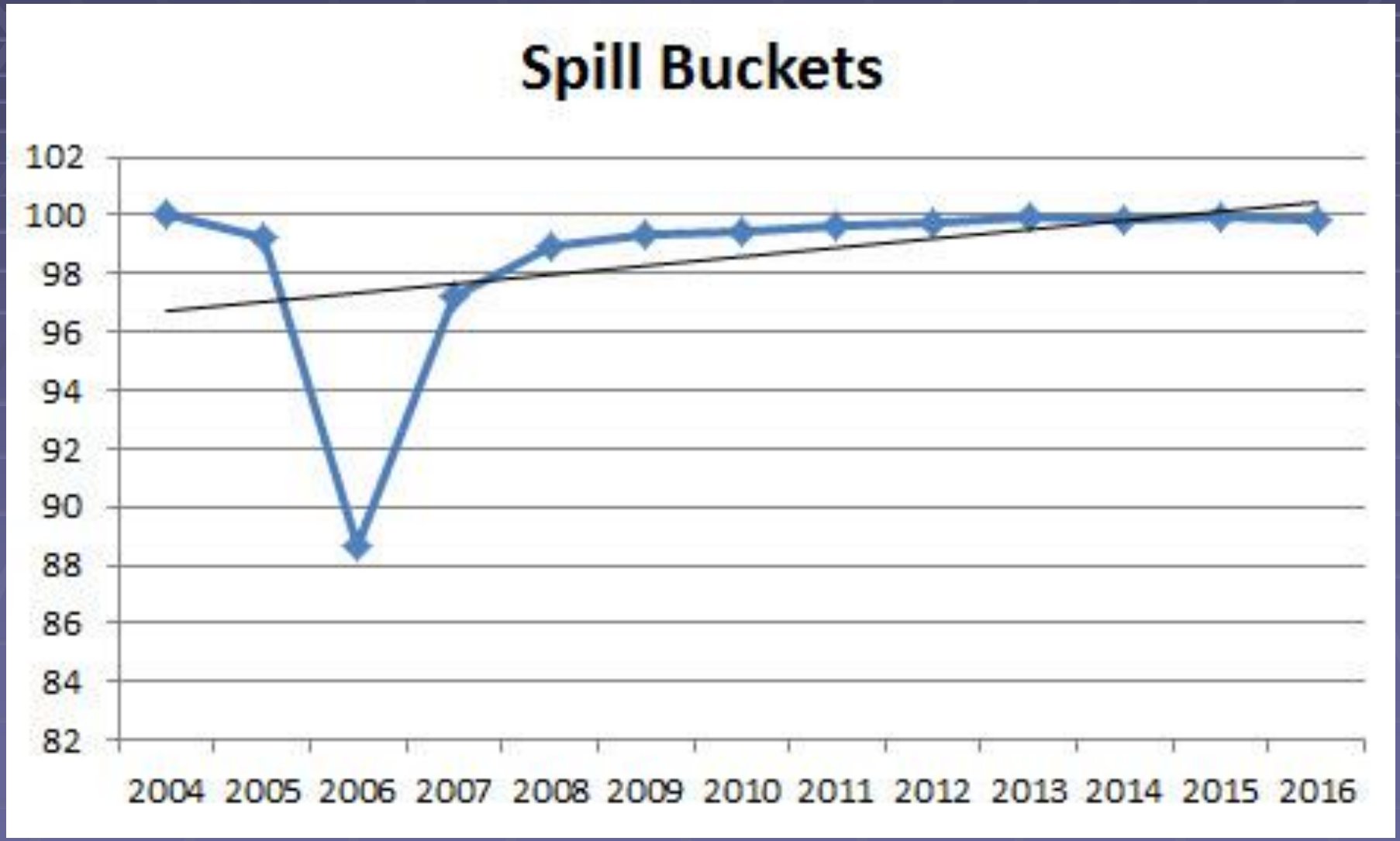


Multi-State Customer With a Proactive Containment Testing Program



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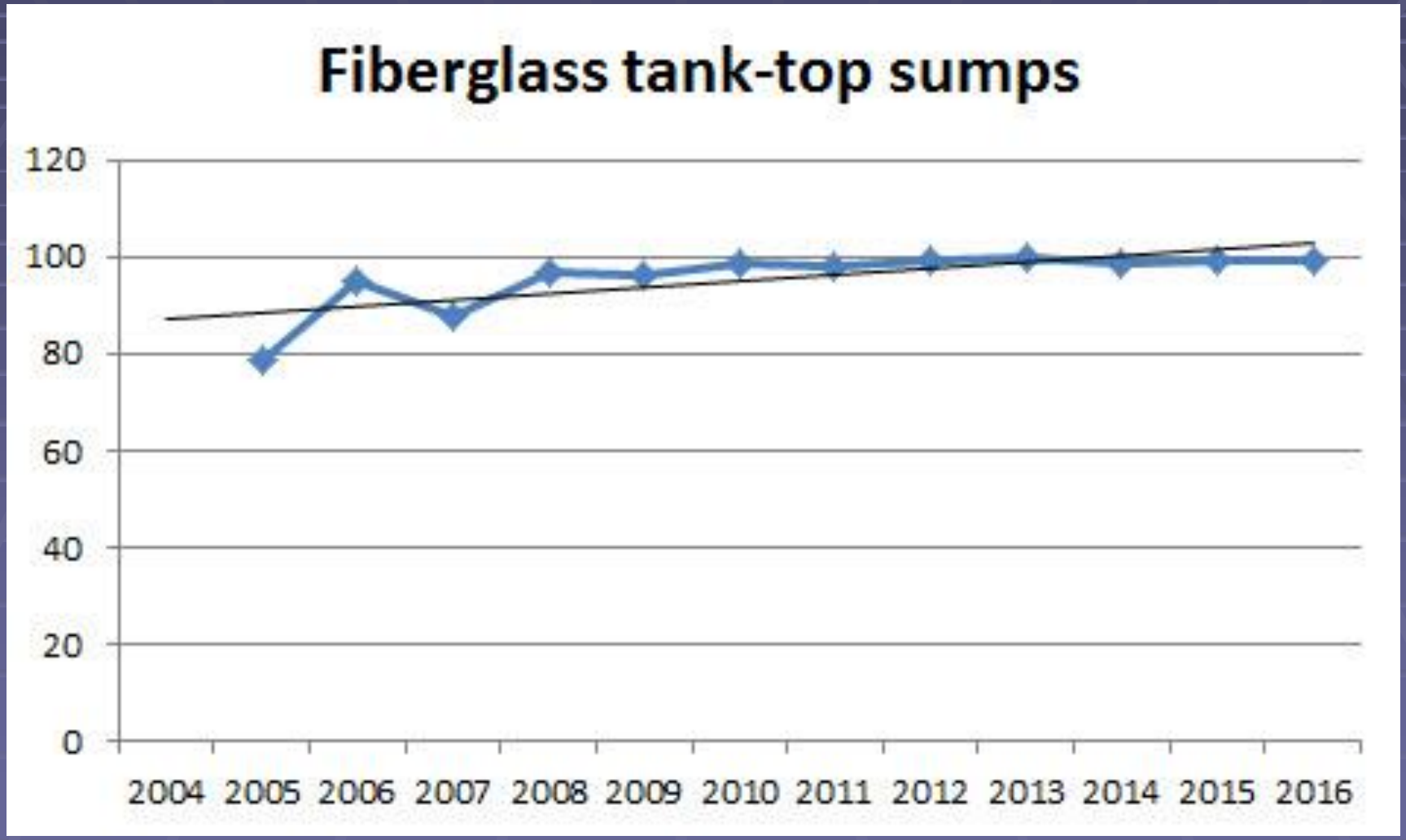

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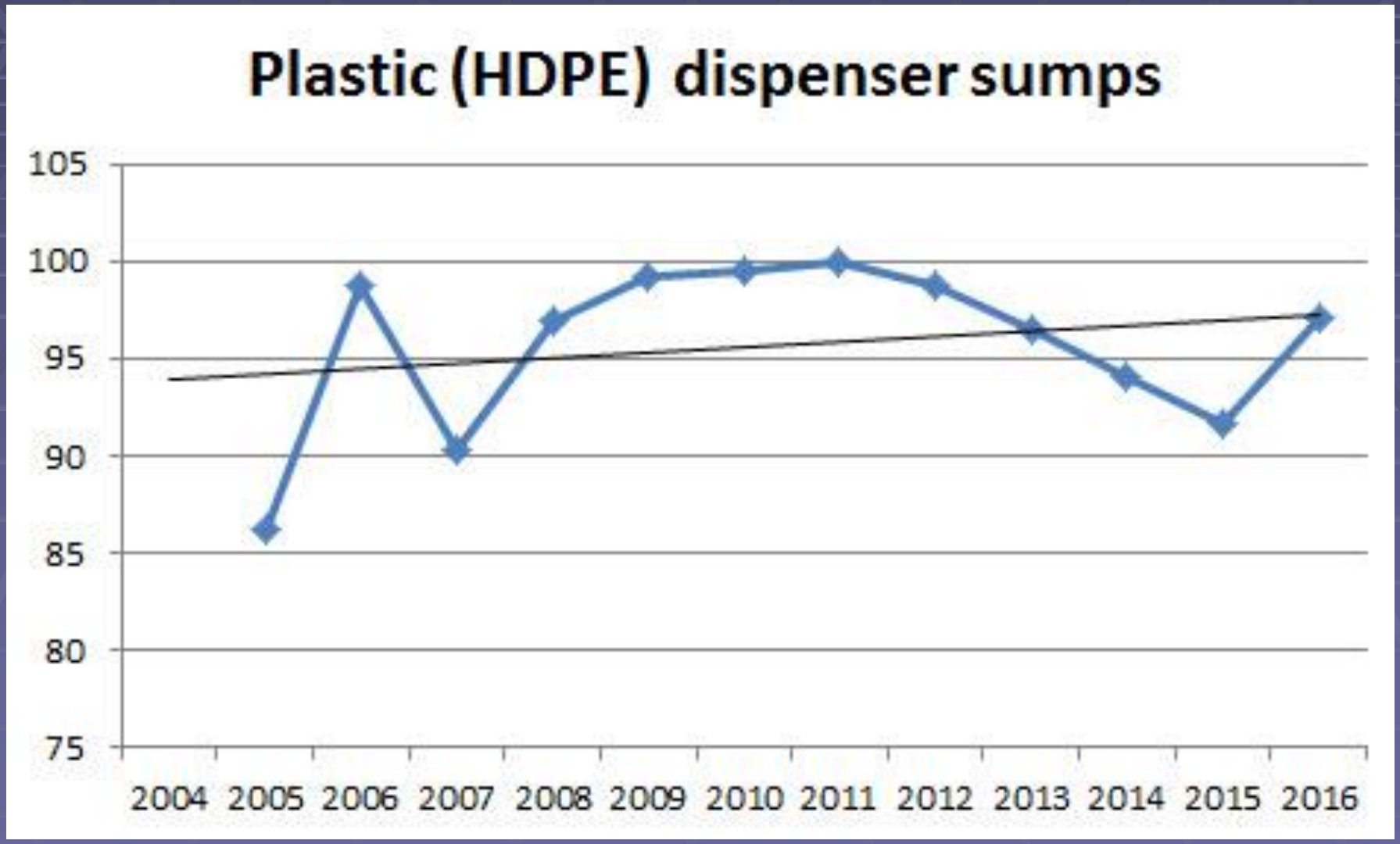
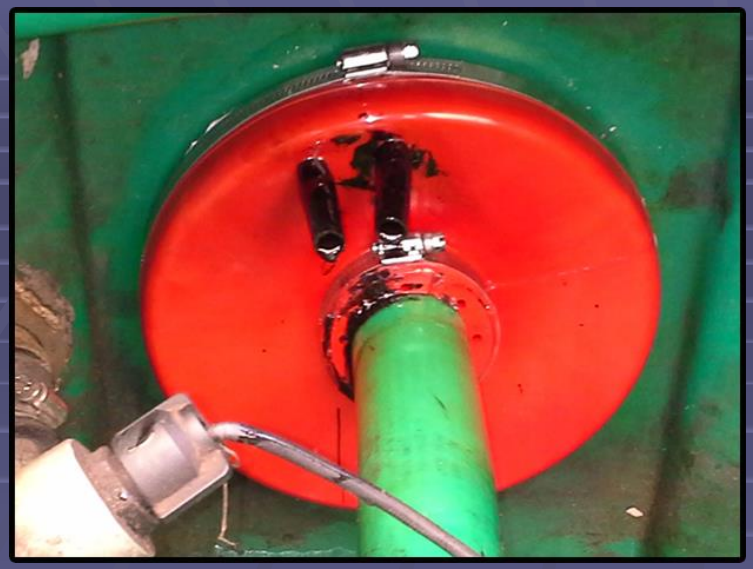
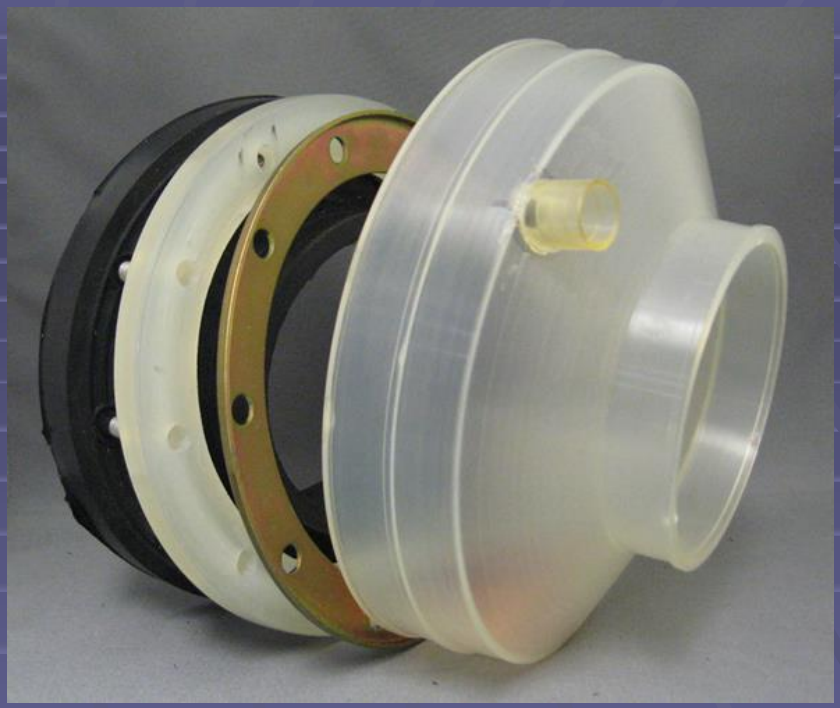


Be Prepared to Repair





Repair Options: Diversified Products Manufacturing (DPM)

Website: http://www.dpm-co.com/

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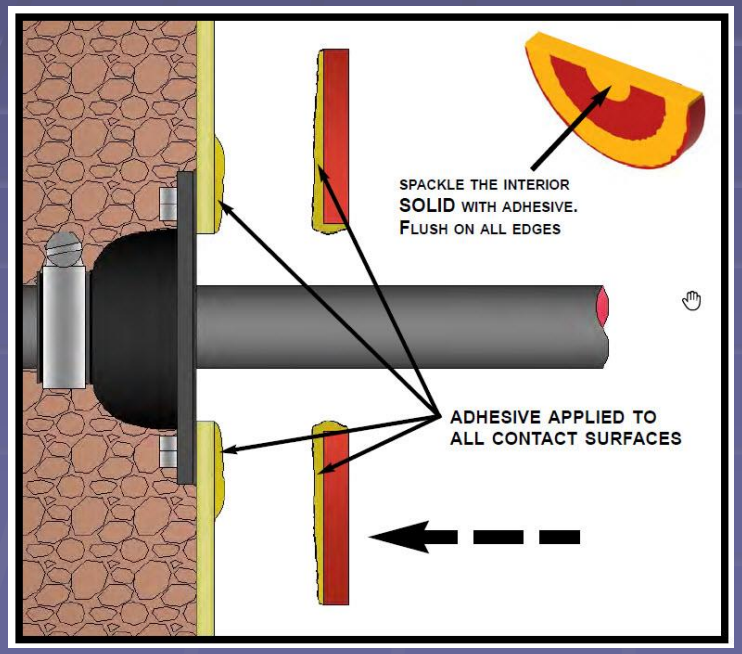
Repair Options: ICON

Website: http://icontainment.com/

Repair Options: Bravo

Website: http://sbravo.com/



Homework for MO DNR:

- Consider developing standardized forms to document tests (PEI RP 1200 has sample forms). This will ease inspector's lives when reviewing.
- Consider providing guidelines for reporting test failures to the Department (testers, owners, both, none) and expectations for repairs (timeframes).
- If DW containment, must the interstitial be tested?

Homework for Owners and Contractors:

- Become familiar with:
  - MO DNR's new rules
  - PEI RP 1200
  - Manufacture's guidelines for testing
  - Approved repair options

QUESTIONS?